MINCHAE KIM

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RESEARCH INTERESTS

Extended Reality; Cross Reality; Human-Computer Interaction; Human-AI Interaction

EDUCATION

M.S. in Computer Science and Engineering, Korea University Mar. 2024 – Present
- Advisor: Prof. Gerard Jounghyun Kim
- Thesis: "JourneyVR: Designing for Continuous Workflow Experience in Virtual Reality"

B.S. in Software, Sejong University Mar. 2019 – Feb. 2024
- Cum Laude

New Jersey City University Jan. 2023 – Mar. 2023
- Exchange Student (Non-degree Program)

RESEARCH EXPERIENCE

Digital eXPerience Lab, Korea University Mar. 2024 – Present
- Graduate Research Assistant (Advisor: Prof. Gerard Jounghyun Kim)
- Proposed and implemented an immersive system that supports spatially continuous task transitions in virtual reality, and conducted user studies to evaluate workflow continuity and user experience
- Contributed to the design and evaluation of an immersive balance training environment that enhances users' tolerance to cybersickness

Graphics Lab, Sejong University Sep. 2023 – Jan. 2024
- Undergraduate Research Assistant (Advisor: Prof. Oh-Young Song)
- Proposed and implemented a multimodal interface combining gesture and speech for intuitive control of visual effects in XR environments

Mixed Reality & Interaction Lab, Sejong University Feb. 2021 – Dec. 2022
- Undergraduate Research Assistant (Advisor: Prof. Jong-Weon Lee)
- Designed and implemented interactive systems to enhance accessibility for users with visual impairments

PUBLICATIONS

Conference & Journal Papers

1. Y.Yang, S.Kang, **M.Kim**, G.Kim, and H.Kim. BalanceVR: balance training to increase tolerance to cybersickness in immersive virtual reality. *Virtual Reality, Vol. 29, no. 39. 2025* (IF = 4.2). [Link]

Posters

1. **M.Kim**, Y.Yang, and G.Kim. JourneyVR: Experience Design for Continuous Timed Activities in Virtual Reality. *IEEE Symposium on Mixed and Augmented Reality Adjunct (IEEE ISMAR-Adjunct '25)*. [Link]

2. J.Choi, **M.Kim**, and O.Song. Multimodal Interface for Controlling Visual Effects in XR Environment. *Korea Computer Graphics Society (KCGS '24)*.

Under Review

1. **M.Kim**, J.Ryu, Y.Yang, and G.Kim. JourneyVR: Designing for Continuous Workflow Experience in Virtual Reality. *(Full paper submitted to CHI '26)*

2. D.Joo, Y.Chang, J.Park, K.Jung, **M.Kim**, and G.Kim. Quantifying Low-Level Motor Effects of Emotion: Validating Fitts' Law in Affective Contexts. *(Full paper submitted to CHI '26)*

TEACHING EXPERIENCE

Teaching Assistant
- Deep Learning *(Korea University)* — Fall 2025
- Artificial Intelligence *(Korea University)* — Spring 2025
- Mathematics for Computer Science II *(Korea University)* — Fall 2024
- Application of Advanced Programming Language *(Sejong University)* — Spring 2022
- Basics of Software and Coding *(Sejong University)* — Fall 2021
- Basics of Software Coding Based on Computational Thinking *(Sejong University)* — Spring 2021

Tutor
- Unity Programming *(Sejong University)* — Jul. 2022

TALKS & EXHIBITIONS

Mixing in Reverse Optical Flow to Mitigate Vection and Simulation Sickness in Virtual Reality — Jun. 2024
- AWE USA 2024, Long Beach, California

ITRC Talent Cultivation Competition — Apr. 2024
- World IT Show 2024, Seoul, South Korea

AWARDS & SCHOLARSHIPS

Outstanding Exhibition Center *(ITRC)* — Apr. 2024
- Exhibited VR research focused on enhancing military training and reducing headset weight

Second Place, Creative Design Competition *(Sejong University)* — Dec. 2023
- Developed a puzzle game featuring seamless transitions between 2D and 3D perspectives

Global Excellence Scholarship *(Sejong University)* — Jan. 2023
- Awarded full-tuition scholarship for outstanding academic performance and leadership in international exchange programs

First Place, Department of Software Academic Conference *(Sejong University)* — Jun. 2022
- Developed a VR campus simulation to facilitate freshmen orientation

Grade Improvement Scholarship *(Sejong University)* — May 2021
- Awarded for demonstrating significant improvement in GPA

Language Excellence Scholarship *(Sejong University)* — Apr. 2019
- Awarded for achieving a TOEIC score of 950+

SKILLS

Programming Language: C#, C++, Python, Java, Swift

VR/AR: Unity, Meta XR SDK, SteamVR, XR Interaction Toolkit

AI: TensorFlow, PyTorch

Data Analysis: JASP, RStudio, SAS, MATLAB

Language: English (Fluent), Korean (Native)